Fig. 1

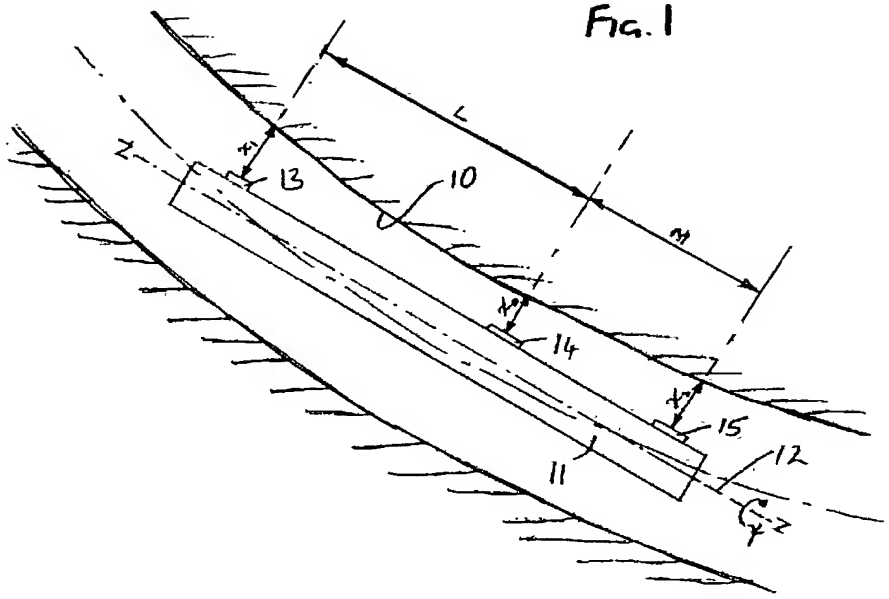



Fig. 2

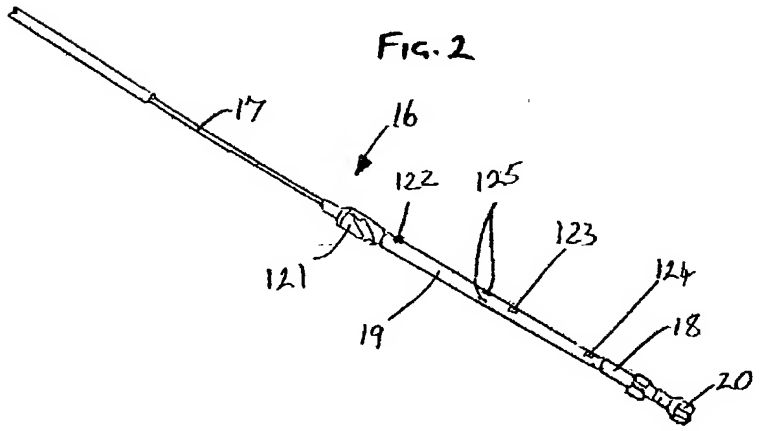


FIG.3
(PRIOR ART)

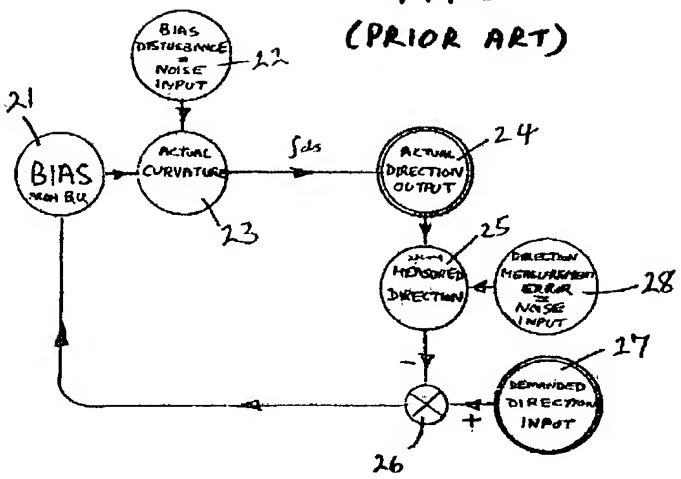



FIG.4

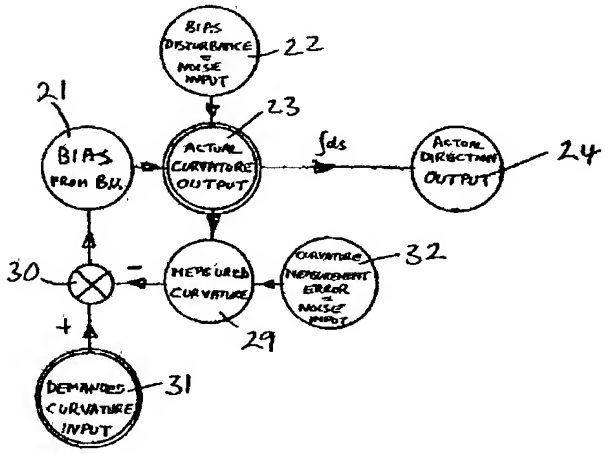


FIG.5

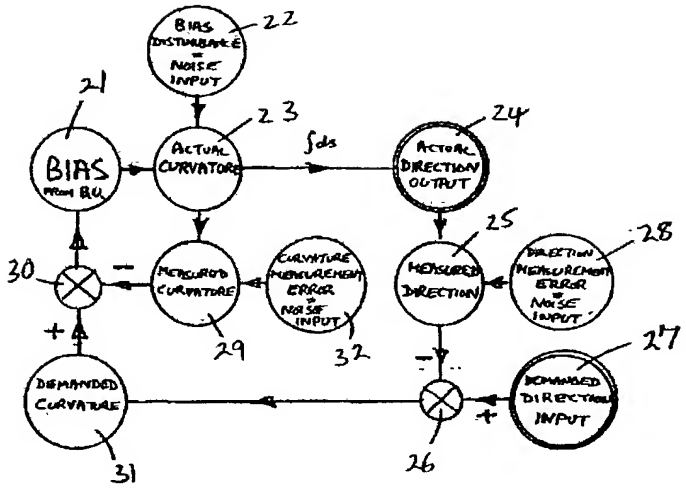
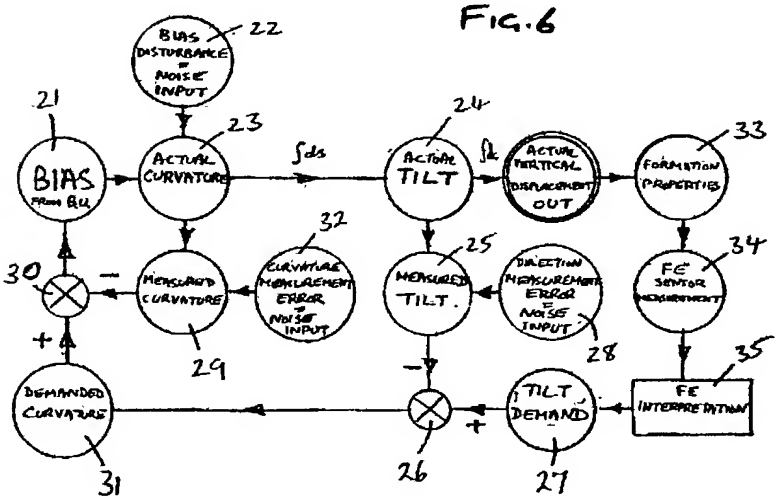

BIAS DISTURBANCE = NOISE INPUT
22
21
BIAS from BU
ACTUAL CURVATURE
23
∫ds
ACTUAL DIRECTION OUTPUT
24
MEASURED CURVATURE
CURVATURE MEASUREMENT ERROR = NOISE INPUT
MEASURED DIRECTION
25
DIRECTION MEASUREMENT ERROR = NOISE INPUT
28
30
29
32
DEMANDED CURVATURE
31
DEMANDED DIRECTION INPUT
27
26

FIG.6


BIAS DISTURBANCE = NOISE INPUT
22
21
BIAS from BU
ACTUAL CURVATURE
23
∫ds
ACTUAL TILT
24
∫dt
ACTUAL VERTICAL DISPLACEMENT OUT
FORMATION PROPERTIES
33
MEASURED CURVATURE
CURVATURE MEASUREMENT ERROR = NOISE INPUT
32
MEASURED TILT
25
DIRECTION MEASUREMENT ERROR = NOISE INPUT
28
FE SENSOR MEASUREMENT
34
30
29
DEMANDED CURVATURE
31
TILT DEMAND
27
FE INTERPRETATION
35
26

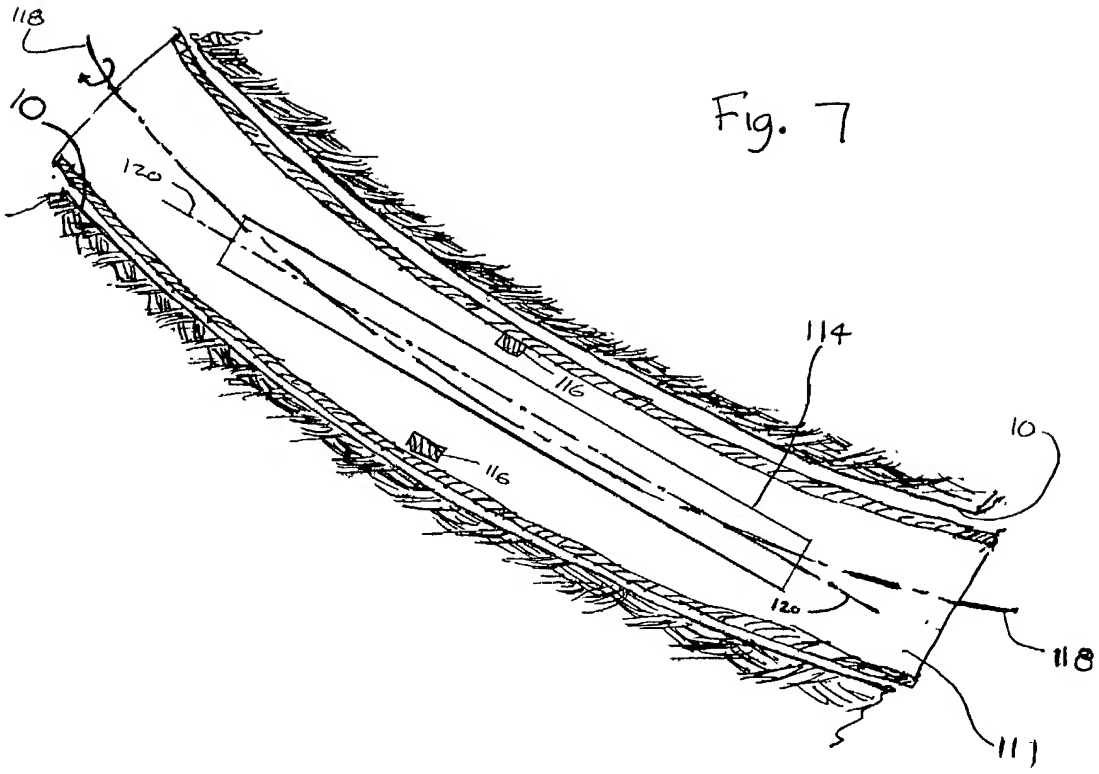



Fig. 7